

EXPLORING MISSING VALUES ON RESPONSES TO EXPERIENCED AND  
LABELED EVENT AS HARASSMENT IN 2004 RESERVES DATA

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### Abstract

Using data from the "Armed Forces 2002 Sexual Harassment Survey," this paper analyzed the extent to which respondents refused to report experiences of sexual harassment (i.e., the responses were missing for that question). Specifically, the total percentages reporting personally experiencing sexual harassment were compared to the percentage of missing cases for that question. Data was then aggregated to the unit level and quartiles based on percentages reporting sexist behavior in their units were created. Finally, the level of reported sexist behavior was compared to the percentages with missing values on the sexual harassment question. Data analysis revealed that the units in the “worst” quartile (i.e., highest reports of sexist behavior) had the most missing responses on the sexual harassment question.

Opinions expressed in this report are those of the author and should not be construed to represent the official position of DEOMI, the U.S. military services, or the Department of Defense.
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## Exploring Missing Values on Responses to Experienced and Labeled Event as Harassment in 2004 Reserves Data

Most research devoted to survey methodology indicates that response rates have been declining over time – both overall survey responses and responses to individual questions (Berk, Schur, & Feldman, 2007; Hajiabdolbaghi, et al., 2007; Smyth, Dillman, Christian, & Stern, 2006; Tomaskovik-Devey, Leiter, & Thompson, 1994). While there are several reasons for this occurrence, it is likely that military surveys are most impacted by: a growing lack of trust in government entities, overlapping surveys, and over-surveyed respondents. For example, Tomaskovik-Devey et al. (1994) found that the most common reason individuals reported for not responding to organizational surveys was that they did not want to divulge confidential information and this was further impacted by the idea that the responses were forwarded or sent directly to headquarters.

There is a growing sense that military personnel are a “captive audience” and as a result, are asked to complete too many (and often overlapping) surveys (Edwards, Rosenfeld, Booth-Kewley, & Thomas, 1996; Newell, Rosenfeld, Harris, & Hindelang, 2004). This will reinforce disinterest and poor motivation, which are further compounded if individuals believe they have a limited capacity to respond to certain questions. Because the general culture of the military suggests that “tattling” about negative events is unacceptable, too often only those who are not afraid of being labeled a “troublemaker” are likely to identify experiences of sexual harassment and assault and as a result, report them (even on a confidential survey) (see for example, Firestone & Harris, 2003; Malovich & Stake, 1990; Stockdale & Vaux, 1993; Saal, 1996; Thomas, 1995). This report examines the cases with missing responses to the sexual harassment questions in the “2004 Workplace and Gender Relations Survey of Reserve Component Members”

(WGRR) to test whether or not there appears to be a pattern indicating serious bias in responses.

### Method

Our research examined a sample of respondents from the “Armed Forces 2002 Sexual Harassment Survey,” (Lipari & Lancaster, 2003) conducted for the Office of the Secretary of Defense by the Defense Manpower Data Center. This was a “worldwide scientific survey of how men and women work together in the ... Active-duty Military Services ...” The stated purpose of the survey was “[t]o assess the prevalence of sexual harassment and other unprofessional, gender-related behaviors....” (Lipari & Lancaster, 2003, p. 6). The instrument “was based on the 1995 Form B questionnaire and incorporated further psychometric and theoretical advances in sexual harassment research” (Lipari & Lancaster, 2003, p. 6). Specifically, we compared the total percentages reporting personally experiencing sexual harassment to the percentage of missing cases for that question. We then aggregated the data to unit level and created quartiles based on percentages reporting sexist behavior in their units. Finally, we examined the level of reported sexist behavior compared to the percentages with missing values on the sexual harassment question.

### *Sample*

A single-stage, stratified random sample of 60,415 respondents was drawn for the survey, representing male and female enlisted personnel and officers in the Army, Navy, Marines, Air Force, and Coast Guard. Data were collected by mail and via the Web, with one-third of respondents returning responses via the internet. A total of 19,960 usable surveys were returned for a response rate of 36% (see, Flores-Cervantes, Valiant, Harding, & Bell, 2003). The original sample includes 10,235 males and 9,725 females,

illustrating the oversampling of women. The sampling frame was stratified by service branch, sex, pay grade, race/ethnicity, likelihood of deployment, and geographic location (Elig, 2003). A series of weighting schemes was developed by the original survey team at the Defense Manpower Data Center tied to branch of service, rank, sex, and race and to test for non-response bias. The full weights provide estimated numbers of respondents that approximate the total active force as of December 2001 (Lipari & Lancaster, 2003, p. 5). To illustrate the impact of the weighting, there are 16,154 weighted male respondents (84.8%) and 2,906 weighted female respondents (15.2%), for a total of 19,060 weighted cases.

#### *Variable Construction and Survey*

Among the items in the “Gender Related Experiences in the Military in the Past 12 Months” section of the survey, respondents were asked the following:

In this question you are asked about sex/gender related talk and/or behavior that was unwanted, uninvited, and in which you did not participate willingly.

How often during the past 12 months have you been in situations involving

- Military Personnel
  - On-or off-duty
  - On-or off installations or ship; and/or
- Civilian Employees and/or Contractors
  - In your workplace or on your installation/ship

Where one or more of these individuals (of either gender)...

Respondents were then provided a list of 19 items and asked whether that item had occurred “very often,” “often,” “sometimes,” “once or twice,” or “never.” We recoded the first four responses in an “ever” occurred category with a value of 1; “never” was coded 0. Based on the original statements, we identified individualistic forms of sexual harassment that are personal and frequently directly physical in nature, and leave

little room for misinterpretation by either the victim or the perpetrator (e.g., sexual assault, touching, sexual phone calls). This form can be differentiated from a broader category of more public, environmental harassment (e.g., jokes, whistles, suggestive looks). The latter actions can be experienced even if directed at another individual, and are ambiguous enough to leave their interpretation dependent on the environmental context.<sup>1</sup> Respondents were initially classified as having experienced individualistic or environmental unwanted, uninvited sexual behavior, or *any* form (individualistic, environmental, or both). We focus on the separate categories of environmental and individual harassment for this research.

Respondents were then asked whether they considered “ANY of the behaviors...which YOU MARKED AS HAPPENING TO YOU ... to have been sexual harassment [emphases part of original survey].” Responses included “none were sexual harassment,” “some were sexual harassment,” “some were not sexual harassment,” and “all were sexual harassment.” This variable was dichotomized to indicate whether *any* events were labeled as sexual harassment, or none were labeled as harassment. Another question asked “Did you report this situation to any of the following installation/Service/DoD individuals or organizations.” The responses included references to the various official channels for reporting. Individuals who responded “yes” to any of the categories were classified as having used official channels to report the incident. Independent variables studied include: sex of respondent, rank (i.e., junior enlisted, senior enlisted, junior officer, senior officer), marital status, and service branch.

### Analysis

Figure 1A shows the differences across various demographic indicators in relation to the total percentage of responses to the sexual harassment questions compared to the percentage of missing responses to the sexual harassment questions. Results indicate that individuals with missing values on the sexual harassment portion of the survey are likely to have one or more of the following characteristics: Hispanic, Black, junior enlisted, female, and have not completed college. All of these categories are those with less power within the military and thus members of these groups may be fearful of responding to the survey with honest answers. While in most cases the percentage differences are small, they do indicate the likelihood that incidences of sexual harassment are under reported on these surveys. This is further emphasized by our analysis of missing values on the sexual harassment question on the DEOCS 3.3 at the unit level.

Table 1B displays the percentage of individuals stating they personally experienced sexual harassment and the percentage of missing cases classified by quartiles (perception of sexism in a unit). The “worst” category indicates units with the highest levels of reported sexist behavior, and the “best” category indicates the lowest levels of reported sexist behavior. It is very clear that the units in the “worst” category had the most missing cases on sexual harassment. Almost half of all missing values cases are from those units in the worst quartile.

This is even more pronounced in Figure 2A. The blue columns represent the percent of missing values on the sexual harassment question located in the quartiles. It is very clear looking at the graph that the largest percentage of missing values is found in the units that were classified as “worst” with respect to reported sexist behaviors. While we cannot directly test our statement, this is highly suggestive that in units where sexist



behaviors are more prevalent, individuals may be afraid to provide honest answers about sexual harassing behaviors and as a result skip the sexual harassment questions.

### Discussion

Our results suggest that individuals who feel powerless or who work in a sexist environment, may be afraid to report sexual harassment (even on confidential surveys). Results suggest that the surveys likely under report actual sexual harassment experiences. Furthermore, the aggregate data strongly support our earlier work (Firestone & Harris, 1994; 1997; 1999; 2003; 2007; Harris & Firestone, 1997) indicating that environmental factors are key in preventing and/or controlling sexual harassment.

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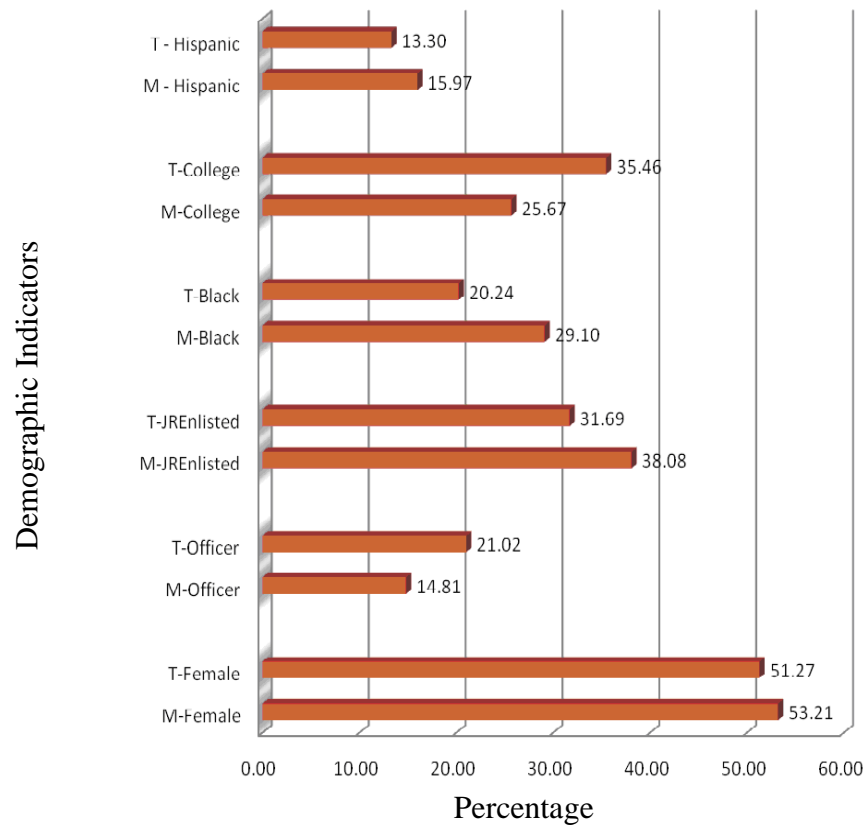
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## Appendix A

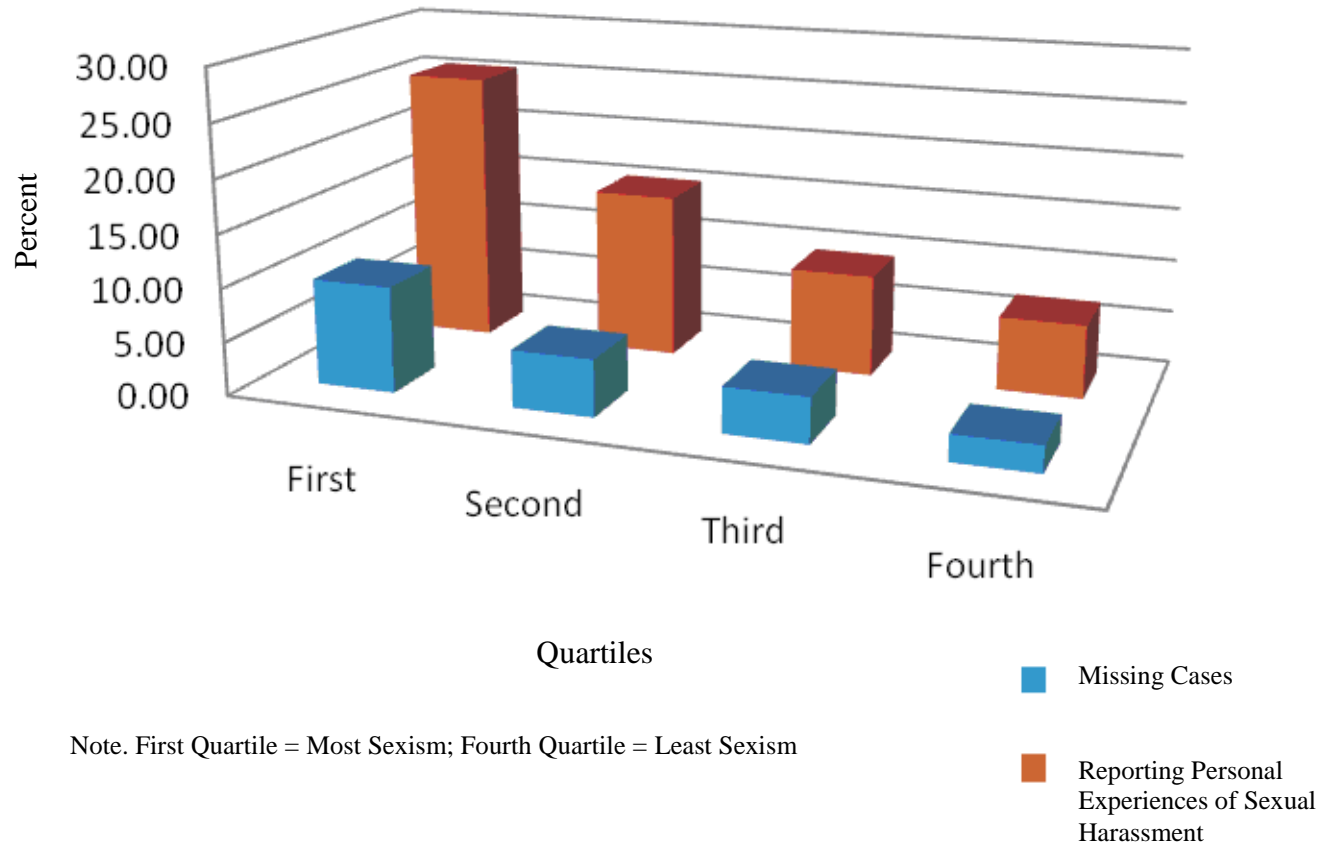
Figure Caption

*Figure 1A.* Missing values on sexual harassment questions by demographic variables.

*Figure 2A.* Personal experiences of sexual harassment and missing values on sexual harassment questions by perceptions of sexism in a unit (quartiles).



Note. T = Total; M = Missing





## Appendix B

Table 1B

*Percentage Reporting Sexual Harassment and Missing Case Based on Quartile of Unit*

*with Respect to Reported Sexist Environment on DEOCS 3.3*

	Worst	Second	Third	Best	Total
Yes, Harassed	42	24.4	20.6	13	100
No	22.9	25.3	25.5	26.3	100
Missing	49.5	29.3	17.3	12.9	100

## Foot Note

Because the questions used in the 2002 survey were not an exact match to the questions from the original 1988 survey, our conceptualizations for individual and environmental harassment are a broad match, but not an exact match of our earlier research. For a description of the statements classified as individual or environmental harassment, see Firestone and Harris, 1994.